

What is claimed is:

1. A semiconductor switch comprising:

a first electrode, a second electrode, and a third electrode formed on a semiconductor substrate;

5       said first electrode and said second electrode connected with the earth and are disposed in parallel to each other, said third electrode formed between said source first and said second electrode;

10       a first terminal coupled to one end of said third electrode; and

a second terminal coupled to the other end of said third electrode.

2. The switch is claimed in claim 1, wherein said first electrode is a drain electrode of a transistor, said second electrode is a source electrode of said transistor, said third electrode is a gate electrode of said transistor.

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3. The switch is claimed in claim 1, wherein said first electrode is a first cathode electrode of a diode, said second electrode is a second cathode electrode of said diode, said third electrode is an anode electrode of said diode.

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4. The switch is claimed in claim 1, wherein said first electrode is a first anode electrode of a diode, said second electrode is a second anode electrode of said diode, said third electrode is a cathode electrode of said diode.

5. A switching circuit comprising:

a coplanar transmission line having a signal line,  
conductors arranged such that said signal line is  
sandwiched between the conductors, said conductors applied  
5 to ground potential;

an element having a first electrode coupled to said  
coplanar transmission line, a second electrode, a third  
electrode, said second and third electrodes applied to ground  
potential; and

10 a signal terminal coupled to said coplanar transmission  
line.

6. The switching circuit is claimed in claim 5, wherein  
said first electrode is a drain electrode of a transistor,  
15 said second electrode is a source electrode of said  
transistor, said third electrode is a gate electrode of said  
transistor.

7. The switching circuit is claimed in claim 5, wherein  
said first electrode is a first cathode electrode of a diode,  
said second electrode is a second cathode electrode of said  
diode, said third electrode is an anode electrode of said  
5 diode.

8. The switching circuit is claimed in claim 5, wherein  
said first electrode is a first anode electrode of a diode,  
said second electrode is a second anode electrode of said

10 diode, said third electrode is a cathode electrode of said diode.

9. The switching circuit as claimed in claim 5, wherein said first, second, and third electrode are formed on a substrate including an AlGaAs layer and an InGaAs layer.